ON THE DATING AND NATURE OF VERB AGREEMENT IN TIBETO-BURMAN [1]

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0. *Introduction*

This paper is part of an ongoing investigation into the nature of grammatical relations [2] in the Sino-Tibetan language family. The ultimate goal of this investigation is to develop a hypothesis on the typological nature of word order and grammatical relations in the mother language which gave rise to all of the many languages within the Sino-Tibetan language family. [3] As the verb agreement (pronominalization) systems [4] of Tibeto-Burman have been said to be a type of ergative marking, and to have been a part of Proto-Tibeto-Burman grammatical relations, the questions of the dating and nature of the agreement systems in Tibeto-Burman are relevant to the discussion of the nature of grammatical relations in Proto-Sino-Tibetan.

Since the mid-1970s, the question of whether or not a verb agreement system should be reconstructed for Proto-Tibeto-Burman has been a controversial topic, but because of the large amount of work published arguing in favour of reconstructing a verb agreement system for Proto-Tibeto-Burman, especially by James J. Bauman (1974, 1975*a*, 1975*b*, 1979), and Scott DeLancey (1980*a*, 1980*b*, 1983, 1988, 1989*a*, 1989*b*), and the lack of any strong opposition, [5] many scholars have begun to accept the existence of a verb agreement system in Proto-Tibeto-Burman as received knowledge. DeLancey, in his overview of Sino-Tibetan linguistics (1987), acknowledges controversy concerning other aspects of Tibeto-Burman reconstruction, but presents his reconstructed Proto-Tibeto-Burman agreement system as an established fact. In another paper he states that ' There can no longer be any serious doubt that a system of verb agreement must be attributed to Proto-Tibeto-Burman ' (DeLancey, 1988: 1). In the present paper, I will raise several serious doubts about the theoretical and methodological validity of reconstructing a verb agreement system for Proto-Tibeto-Burman, and at the same time argue in favour of the use of functionally and

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[1] A shorter version of this paper appeared as LaPolla (1989). I should like to thank again all those who helped in the production of that paper (Scott DeLancey, Gary Holland, James A. Matisoff, Martine Mazaudon, Boyd Michailovsky, Johanna Nichols, Graham Thurgood, and Robert D. Van Valin, Jr.), and also Kathleen Ahrens, Søren Egerod, Alice C. Harris, and my colleagues in the Linguistics Section, especially Chu-Ren Huang, Ren-kui Li, Jackson T-S. Sun, Chih-chen Jane Tang, and Pei-chuan Wei, for their valuable comments on an earlier draft of this paper. Any mistakes or errors of judgement are of course my own.

[2] ' Grammatical relations' is here meant to include syntactic relations (manifested as the syntactic functions ' subject ', ' direct object ', etc.), semantic relations (' agent ', ' patient ', etc.), and pragmatic relations (' topic ', ' focus ', etc.). It is assumed that semantic and pragmatic functions are inherent in all languages, whether or not they are marked, though not all languages grammaticalize syntactic functions.

[3] An outline of this investigation and its first results are given in LaPolla (1990).

[4] By ' verb agreement system ' I am only referring to the marking of particular participants in the clause with clitic pronouns, what Bloomfield (1933: 191-4) referred to as ' cross-reference ', not to evidential systems like that in, for example, Lhasa Tibetan. The term ' pronominalization ' is used to refer to the emergence of this type of system through the cliticization of personal pronouns, and so the languages that have undergone that process are sometimes referred to as ' pronominalized '. As we will see, this type of marking is not always related to syntactic function or semantic role, so ' person marking ' would be a more appropriate term for this type of system, but I will adhere to tradition and use ' agreement ' and ' pronominalization ' instead.

[5] Benedict (1983: 96) mentions in a footnote that pronominalization in Tibeto-Burman should be interpreted as being a relatively late innovation, and other scholars (e.g. Caughley, Nagano) have discussed the verb agreement systems they are familiar with as innovations, but no one has systematically analysed and refuted the arguments presented by those who support reconstructing a Proto-Tibeto-Burman verb agreement system.

typologically based theories of grammar, as exemplified by the head-marking/ dependent-marking distinction developed in Nichols (1986 and forthcoming) in diachronic syntax and syntactic reconstruction.

Two separate but related systems of verb agreement have been proposed for Proto-Tibeto-Burman, one suffixal and one prefixal. The essential character-istics of the suffixal system are, according to DeLancey (1989b: 317), ' the personal suffixes 1st person *-ŋa, 2nd person *-na, and a split ergative agreement pattern in which agreement is always with a 1st or 2nd person argument in preference to 3rd person, regardless of which is subject or object.' It is this paradigm that has been discussed at greatest length and the one on which we will concentrate in our discussion. DeLancey (1989b) and van Driem (1990b) have argued for reconstructing a paradigm of pronominal prefixes for Proto-Tibeto-Burman as well, involving at least three prefixes, two consonantal (t-, k-) and one vocalic (a- or e-). We will only touch on this pattern at times, but many of the theoretical questions we will discuss are relevant to both systems. The two main questions I shall deal with in this paper then are (a) is there sufficient evidence to allow us confidently to assert that the suffixal pattern is a case of shared retention in those languages that exhibit it, and that it was lost in those languages that do not exhibit it; and (b) is the pattern one of split ergativity; can these agreement systems be used as evidence for reconstructing ergativity to Proto-Tibeto-Burman?

1. Geographic/genetic distribution

An argument often made in favour of a Proto-Tibeto-Burman verb agree-ment system is that ' this pattern is manifested in at least one language in every recognized sub-branch of the family except for Lolo-Burmese and Karen ' (DeLancey, 1988: 1). This is not as strong an argument as it may seem, for two reasons. First, as Thurgood (1984b: 3) points out, ' Tibeto-Burman subgroup-ing is in its infancy; not only does the composition of lower-level units still pose numerous questions, but the composition of higher-level units remains almost completely open.' [6] With the large number of languages in Tibeto-Burman (Bauman, 1979 puts it at over 200), the small number of languages that have verb agreement systems are nowhere near a majority, and almost all of them are in the Rung (Thurgood, 1984a, 1984b), Kiranti, or Kuki-Chin-Naga branches of the family. The possibility that these languages form a higher-level grouping cannot be dismissed out of hand. For example, Ebert (1990) has argued for a Kiranti-Rung genetic grouping.[7] Thurgood (1985) has also given evidence that the Kanauri-Almora group, usually considered a branch of Tibeto-Kanauri (which itself is a grouping within the Bodish branch and the only group within Bodish that has verb agreement systems) is actually genetically closer to the Kiranti and Kuki-Chin languages.[8] DeLancey (1987) divides Tibeto-Burman

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[6] See Shafer (1955, 1966), Benedict (1972), DeLancey (1987), Sun (1988), and Dai, Liu and Fu (1989) for five very different analyses of genetic relations in Tibeto-Burman. See also Burling (1983: 1) on how some of the traditionally used groupings, such as ' Naga ', ' North Assam ', and ' Kachin ' (and we could add the newer ' Kamarupan ') ' seem to label little more than geographically contiguous groups for which no genuine linguistic reality has been demonstrated.'

[7] She shows, for example, that there is a particular direction marking system in common among some Kiranti and Rung languages, and, in talking about the relationship between Gyarong and the Eastern Kiranti languages, says ' there is no evidence for direction marking of the Kiranti-Rung type anywhere outside those groups ... The direction system, together with the distribution of the t-/k- prefixes, makes it seem likely that the ancestors of the Kiranti and the Gyarong once were at least neighbors participating in the u-/-u direction marking and the prefixing wave ' (p. 16).

[8] See also Grierson (1909, vol. III), for particular characteristics shared between the eastern (e.g. Kanauri) and western (e.g. Kiranti and Kuki-Chin) Himalayan pronominalized languages not shared by the Tibetan languages, and Watters (1975) for discussion of the ' remarkable similarities '

into Karenic, Bodic (Bodish and East Himalayan), Baric (Kamarupan and (possibly) Kachin), Burmic (Naxi, Lolo-Burmese, and (possibly) Rung). DeLancey's placement of Jingpo (Kachin) with the Bodic languages, and not the Rung languages, as suggested by Thurgood (1984a, 1984b), is questionable (he himself expresses doubt about it). Sun (1985: 242-7, 1988) and LaPolla (1987) also argue for seeing Jingpo and the Nungish languages (a branch of Rung) as part of a single branch. Given the possibility that Kanauri-Almora and Jingpo might be better grouped with the other pronominalized languages, then taking DeLancey's analysis as a base, Tibeto-Burman would have only six major sub-branches (the sub-branches being those in parentheses after each branch mentioned above), with three out of the six showing no agreement systems.

Second, the languages with verb agreement systems are almost all geographically contiguous, forming a ring around the edge of the Tibetan plateau from north-west China down along the southern edge of the plateau, including the Himalayan region, forming what Sun (1983a, 1985) refers to as an ' ethnic corridor ', an area of large-scale language contact, multilingualism, and mutual influence, and a path along which many of the nationalities moved when they migrated south.[9] Language contact, shared innovation within a subgroup (e.g. Kiranti), or a combination of the two then all are possibilities, yet Bauman (1974, 1975a) gives only the following possibilities for the development of the Tibeto-Burman verb agreement systems: native (i.e. Proto-Tibeto-Burman) development, borrowing from Munda (an Austroasiatic group), borrowing from Indo-Aryan, and the Turanian hypothesis (the idea that all of central and eastern Asia's languages except the Indo-European ones are related). He states that ' No other possibilities seem forthcoming, with the doubtful exception of independent innovation wherever the feature appears ' (1974: 118). Yet, first of all, independent innovation in two or more subgroups cannot be dismissed so lightly. As Thurgood (1985: p.378, n. 4) has argued, ' many similarities between closely-related languages are what Sapir [1921/1945, ch. viii] called " drift "; that is, the common starting point provided by a common origin often conspires with universal tendencies to provide parallel but historically quite independent paths of development among genetically related languages.'[10] Second, the other logical possibility, that one or more languages in the family independently developed a verb agreement system and it spread geographically (possibly aided by similar features in local non-Tibeto-Burman languages), has not been explored in any of the literature arguing for a Proto-Tibeto-Burman verb agreement system. Given this possibility, whether a particular grouping of languages has one pronominalized language, especially if that one language is in contact with pronominalized languages in other groups, is not particularly relevant.

Throughout South and South-East Asia we see the spread of areal features (either through outright borrowing, by (morphological) calque, or combined innovation-areal influence) of all types, such as tone systems, phonetic inventories, noun classifier systems, double causativization, and word-order pat-

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(p. 50) between the pronominals and subject marking systems of the eastern and western (now including Kham) Himalayan pronominalized languages.

[9] The area covered by these languages is relatively compact, and not large. For example, all of the Kiranti languages are spoken in an area of eastern Nepal only about 140 kilometers wide (see Michailovsky, 1975: 184 for map).

[10] Later in the same work, in a bracketed note, Thurgood's tone is a bit stronger: ' [Note: it is already clear that at least some of the innovation patterns here are due at least in part to parallel but independent development.] ' (p. 399). See also the discussion of Australian languages in footnote 25 below.

terns,[11] yet nowhere is the possibility of areal spread of verb agreement systems within Tibeto-Burman mentioned. Bauman (1974: 144) does mention areal (Lolo-Burmese and Barish) influence as a possible reason why some verb agreement systems *do not* have the complex number distinctions that other languages have; those without such distinctions would supposedly have 'levelled out' the distinctions because of contact with the morphologically simpler languages (see also below, §3.1).

We then have, aside from the Proto-Tibeto-Burman verb agreement system hypothesis, three other possibilities: (*a*) those languages with verb agreement systems are genetically related on a higher level; (*b*) a verb agreement system independently developed in one language and spread geographically; or (*c*) some combination of innovation within two or more subgroups and geographic spread or drift occurred. It is this last possibility that seems most likely given the fact that not all of the systems we find are of the same type (Thurgood, 1985: 337; Caughley, 1982: 206; DeLancey, 1989*b*: 315).

2. Time depth

Those languages that do not have verb agreement systems, the vast majority of all Tibeto-Burman languages, have *no trace whatsoever* of ever having had one.[12] These languages include four of the five languages which have writing systems more than four hundred years old: Tibetan (seventh century), Burmese (twelfth century), Newari (fourteenth century) and Yi (Lolo; sixteenth century). Tangut (twelfth century), on the other hand, has an optional, morphologically simple, etymologically transparent verb agreement system that shows no signs of age. It is highly unlikely that Tibetan, Burmese, Newari, and Yi would all have lost every trace of their verb agreement systems while Tangut's did not age at all. DeLancey (1989*b*: 316) discounts this argument because he says 'it rests on the demonstrably false premise that no contemporary language could, in any significant respect, be more conservative than a related language attested from a millennium ago.' Yet the situation is not that simple. For example, Written Tibetan preserves a very archaic set of prefixes and suffixes (unrelated to the set we are discussing here), which has uncontroversially been reconstructed for Proto-Tibeto-Burman, and might even go back to Proto-Sino-Tibetan.[13] If we were to accept a Proto-Tibeto-Burman verb agreement system along the lines of what DeLancey is suggesting, then we would be in effect saying that Tibetan completely lost that agreement system while retaining remnants of the earlier system of prefixes and suffixes. This would be a hard stretch of the imagination. Van Driem (1991: 532) gives a similar argument to DeLancey's, and states that 'the loss of an inflectional system in one group of languages . . . and its retention in another genetically related group is a widely attested phenomenon', yet the point is that even with all the varying opinions about subgrouping in Tibeto-Burman, there is no controversy that aside from Burmese-Yi forming a branch within Tibeto-Burman, Tibetan, Burmese-Yi, and Newari do not form a group in any sense, so the 'loss' that van Driem speaks of would have to be explained

[11] See Emeneau (1956) for evidence from India that 'linguistic features, especially those of morphology and syntax, can diffuse across genetic boundaries' (p. 16). See also Gong (1989) on the possibility that the system of postpositions reconstructable for parts of Tibeto-Burman is borrowed from the Altaic languages.

[12] By 'trace' here, I mean some remnant of an originally full system which no longer has any agreement functions, possibly some phonological alternation in the verb stems, or unexplained verbal suffixes, or a system that has degenerated into simple verb agreement (Bloomfield's 'congruence') rather than person marking, as in the change from the Latin person markings to the French verb agreement forms.

[13] The original function of many of these fossilized affixes is not yet clear. See Wolfenden (1929) and Benedict (1972) for two different analyses.

in each individual case. Van Driem (1991: 532) also argues that 'developments in the phonology of many language groups, such as the Draconian restrictions on syllable structure and polysyllabicity, provide typological reasons which readily account for the widespread loss of a verb agreement or other inflectional system.' Yet having such constraints does not account for the 'loss', as those languages that have such systems are subject to the same constraints, and Old Tibetan was much less affected by such constraints than some of the modern pronominalized languages.[14]

Another factor is the etymological transparency and optionality of the Tangut system, and its clear pragmatic function of marking that speech act participant (SAP, i.e. 1st or 2nd person) most affected by/involved in the action of the predication:[15] Kepping (1975, 1979, 1981, 1982, 1989) was the first to discuss agreement in Tangut, and table 1 (below) is taken from her work. Her analysis of the agreement pattern is that (a) the verb agrees only with SAPs, (b) it is optional,[16] and (c) agreement is not related to semantic role unless there are SAPs in both the A and the P roles, in which case agreement is with the SAP in the P role.

Table 1: *Tangut agreement patterns and free pronouns*

A ROLE[17]	P ROLE	PRONOM. CLITIC	INTRANSITIVE		FREE PRONOUNS	
1	2	$-na^2$	1sg.	$-\eta a^2$	1sg.	ηa^2
1	3	$-\eta a^2$	2sg.	$-na^2$	2sg.	na^2
2	1	$-\eta a^2$	3sg.	θ	3sg.	θ
2	3	$-na^2$				
3	1	$-\eta a^2$				
3	2	$-na^2$				
3	3	θ				

[14] As van Driem himself (1991: 527) says, 'In view of the complex morphologies of a great number of Sino-Tibetan languages, the total or near total lack of morphology in a large number of Sino-Tibetan languages, such as Chinese, requires an explanation.'

[15] Van Driem (1991: 528-9), argues that agreement cannot be with the most affected 'actant', and gives two Tangut sentences as proof. In each sentence the patient of the verb meaning 'to kill' is a third person ('wife'/'wives' respectively) and agreement is with a second or first person possessor (i.e. the husband/husbands) of the patient. Van Driem feels that the wives in these sentences are the most affected 'actants', and as agreement is not with them, 'It would be inaccurate, if not misogynous, to argue that the patients indexed by the verbal agreement endings are the most affected actants' in those sentences. The reason for van Driem's argument is unclear, as no one has argued that agreement is with the most affected 'actant'. Agreement is only with SAPs, and in each of the sentences van Driem cites there is only one SAP, so agreement is with that SAP.

[16] Van Driem (1991: 525) misrepresents the Tangut system by stating that 'involvement of a third person actant is marked by zero in all Tangut verb forms'. Third person actants are unmarked, but this is not the same as saying they are marked by zero; as the agreement affixes do not obligatorily appear on each verb, or even on the majority of verbs in the Tangut texts, and only one SAP participant is marked, even when there are two in the sentence, it is wrong to assume that Tangut non-marking is equivalent to marking by a morpheme with a zero phonetic realization. Van Driem's statement (1991: 525) that 'A transitive verb agrees with its patient unless the patient is marked by zero' is also a misrepresentation of the facts, and is in fact nonsensical. It is equivalent to saying that 'agreement is with the patient except when it is not with the patient'.

[17] Kepping uses the terms 'subject' and 'direct object', yet as we have no evidence that these syntactic functions existed for Tangut speakers, I will use A, S, and P instead. These symbols refer to the three major types of argument: S, the single argument of an intransitive verb; A, the argument which prototypically would be the agent of a transitive verb; and P, the argument which prototypically would be the patient of a transitive verb (Comrie, 1978). Kepping also posits a 1st and 2nd person plural agreement marker, ni^2, but Nishida (1987: 20) considers this to be a subjunctive particle. If Kepping is correct, then if a single clause had both 1st and 2nd person plural referents, this morpheme would be ambiguous. This fact would seem to preclude any analysis crucially involving semantic role or syntactic function.

From her own study of the Tangut text *The grove of classifications*, Ahrens (1990) has concluded that (*a*) verb agreement only occurs in quoted speech;[18] (*b*) agreement is usually with the A and S arguments, not with the P argument; (*c*) when there are two SAPs involved in a clause, agreement is not necessarily with the P argument. There does not then seem to be a regular correspondence between participant role and agreement marking. In fact, if there is only one SAP in the clause, agreement will be with that SAP even if it is an oblique argument or the possessor of one of the other arguments (Kepping, 1982).

Agreement then in Tangut is related to SAP affectedness ('viewpoint'—see §3.4 below), not grammatical or semantic function. This clear discourse function marking the most salient speech act participant[19] (Ebert, 1987, DeLancey, 1981*a*, 1981*b*) and the etymological transparency of most of the Tibeto-Burman verb agreement systems (the independent pronouns become attached to the verb) show that these agreement systems are relatively recent grammaticalizations of discourse prominence.

A possible example of evidence within the history of one language[20] for the development of a verb agreement system is the Singpho dialect of Jingpo, mentioned by DeLancey (1989*b*: 323) as a case of how rapidly a language can completely *lose* an agreement system. This dialect is ' spoken well to the west of the other dialects', and ' the time of separation of Singpho from its eastern siblings can hardly be even as much as a millennium ' (ibid.; see also Grierson (1909: I, 71) for the dating of this split). It seems more likely that that dialect, out of range of the areal features to the east, never developed a verb agreement system at all. If this were the case, it would give us a time depth of less than one thousand years for the development of the Jingpo verb agreement system, just what we would expect judging from the Tangut data.

3. *Theoretical/methodological considerations*

3.1. *Reconstruction methodology.* The discussion of Tangut points up a difference in methodology between myself and most of those supporting a Proto-Tibeto-Burman verb agreement system: DeLancey, Bauman, van Driem, and others reconstruct the most complex system possible, attempting to combine all the attested forms and features, and consider those languages that have the most complex systems, such as Gyarung, as the most conservative (DeLancey,

[18]Supporting Ahrens's view is the fact that this system does not seem to have been used in anything like the majority of clauses in the Tangut texts that Kepping studied, and Kwanten (1982) did not find any trace of it in two Tangut texts he studied. Possibly because of the scarcity of this pattern, two other Tangut scholars, Nishida (1964-66) and Sofronov (1968), earlier analysed Tangut as a non-pronominalized language (both cited in Kepping 1975 and Kwanten 1982). (Nishida has since (1987) changed his view and accepted the concept of agreement in Tangut, though he disagrees with Kepping on some of the particulars.) Ahrens's conclusion on this point might also simply be a reflection of the lower frequency of SAP referents in non-conversational discourse.

[19] The coding of speaker-hearer involvement is marked in various ways aside from this particular agreement pattern in many Tibeto-Burman languages; see for example Toba (1980), and Watters (1980) for two other systems within Nepalese Tibeto-Burman languages. See Silverstein (1976, 1981) on the cross-linguistic implications of the person saliency hierarchy, and the common grammaticalization of ' the perspective from which a state of affairs is predicated of referents, the most " natural " being that which grows out of the configuration of the ongoing speech event ', the ' maximally supposable entities ' of which are the SAPs (Silverstein 1981: 243).

[20] There is one other case, that of Tiddim Chin (Henderson, 1957), but I am not sure what to make of it. In Literary Tiddim Chin there is no trace of the proposed Proto-Tibeto-Burman suffixal agreement system, though there are pronominal prefixes for both nouns and verbs. Colloquial Chin, on the other hand, prefixes nouns, but suffixes verbs, as in Kiranti. (Cf. the closely related Sizang (Siyin) dialect (Stern, 1963), which has the same prefixing system, but no suffixing system, and the evidence (Ahrens, 1990; see above) that in Tangut pronominalization only occurs in quoted discourse.) The problem is we do not know for certain which of the two styles is the more conservative.

1987: 807-8; 1989*b*: 318).[21] For example, Bauman (1974: 134) suggests that a complex system such as that for Nocte, with a tense-aspect split, is closer to the original Proto-Tibeto-Burman verb agreement system than a simpler system such as that of Tangut, which would supposedly have 'levelled out' the tense-aspect system. As pointed out above, Bauman (1974: 144) also argues that the verb agreement systems that do not have the complex number distinctions that other languages have, have 'levelled out' the distinctions because of contact with the morphologically simpler languages.

It is important to note that in arguing that the 'original' Proto-Tibeto-Burman verb agreement paradigm was quite complex (such as in fig. 1, below), and that those languages that have simpler systems (or no systems at all) have lost the 'missing' forms due to phonological attrition or levelling, those scholars are saying that Tangut inherited a complex system, yet through the process of phonological attrition and levelling distilled out a perfectly regular (i.e. morphologically simple), transparent system where the markings on the verb correspond exactly to the free pronouns in phonological shape. This type of teleological development seems to me a very unlikely possibility.

kɛ-					-a ~ -ŋ ~ -ŋa				-ni
2					1s		-u		2p
							3P		
a-	me-	VERB	-nši	-tɛ	-na	si		-si	-i
1	pA	STEM	REF	PT	2	dA		dP	12p
							-a		
ta-/na-					-nya	3			-k
marked					1s→2				1p
scenario									

Fig. 1: *Proto-Tibeto-Burman agreement system as reconstructed by van Driem* (1990*b*: 50-51).   (A = agent, d = dual, p = plural, P = patient, PT = preterit, REF = reflexive, s = singular, → = direction of transitive relationship; 1, 2, 3 = 1st, 2nd, 3rd person)

It also seems necessary for us to consider the relationship between Tangut and (at least some of) the modern Qiang languages, all of which have complex agreement systems involving tense/aspect and portmanteau morphemes. One or more of the Qiang peoples, particularly the Muya, have been said to be descendants of the Tangut (Ran, Li and Zhou, 1984: 184-5; Li, 1989: 222; see also Sun, 1991 on the relationship between the Qiang languages and Tangut). If the Muya language (Huang, 1985) is descended from Tangut, then to accept DeLancey and van Driem's view we would have to say that there was originally a complex system, Tangut then distilled out a simple system, and then that language again developed a complex system (presumably identical to, or at least cognate to, the old one). Again we have a very unlikely scenario.

Rather than reconstructing a system that tries to incorporate all of the modern features, we should reconstruct only those features for which we can show no clear line of development, i.e. opaque = archaic; we should reconstruct

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[21] See for example DeLancey's comment in discussing the prefixal paradigm: 'If the modern languages do retain their prefixes from an older paradigm, then that paradigm must have been more complex than any of its attested reflexes' (1989*b*: 331).

only those shared patterns for which we can find no motivation.[22] Morphology is built of grammaticalizations (cf. Hopper, 1987; Thompson, 1988), so we should strip back the layers of grammaticalization from the grammar until we can go no further. What is left is what we should ' reconstruct '.

3.2. *Grammaticalization.* The methodological difference just mentioned also highlights a difference in the understanding of the way grammaticalization works. I follow Lehmann (1985) in assuming that we can determine the degree of grammaticalization of a sign by reference to how autonomous it is. The parameters involved in the autonomy of a sign are its semantic and phonological weight (integrity and scope), the degree of cohesion it has with other signs (i.e., its paradigmaticity and bondedness), and its syntagmatic and paradigmatic variability (mobility vis-à-vis other signs). The parameters and processes of grammaticalization are then as in fig. 2 (Lehmann, 1985: 309).

parameter	weak grammaticalization	—process	> strong grammaticalization
integrity	bundle of semantic features; possibly polysyllabic	—*attrition*	> few semantic features; oligo- or monoseg- mental
paradigma- ticity	item participates loosely in semantic field	—*paradigma- ticization*	> small, tightly in- tegrated paradigm
paradigmatic variability	free choice of items according to commu- nicative intentions	—*obligato- rification*	> choice systematically constrained, use largely obligatory
scope	item relates to con- stituent of arbitrary complexity	—*condensa- tion*	> item modifies word or stem
bondedness	item is independently juxtaposed	—*coalescence*	> item is affix or even phonological feature of carrier
syntagmatic variability	item can be shifted around freely	—*fixation*	> item occupies fixed slot

Fig. 2: *The parameters and processes of grammaticalization* (from Lehmann, 1985: 309)

   Grammaticalization involves the ' attrition ' (loss of integrity) of a sign, so that as grammaticalization progresses, there is a lessening in the phonological

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[22] Such as with the reconstruction of second-position pronouns in Indo-European. Cf. the following quote from Meillet (Watkins, 1969: 17) (pointed out to me by Gary Holland):

   La grammaire comparée doit se faire en utilisant les anomalies — c'est à dire les survivances — bien plus que les formes régulières ... Les traités de grammaire comparée ont souffert de ce que, pour la restitution de l'état initiale, l'importance attribuée aux formes normales des états de langue historiques est trop grande.

and semantic weight (including demotivation) of a sign. Along with attrition there is the concomitant 'paradigmatization', 'obligatorification' (loss of paradigmatic variability), 'condensation' (reduced scope), 'coalescence' (increased bondedness), and 'fixation' (loss of syntagmatic variability) (Lehmann, 1985: 305-9).[23] We see advanced stages of all of these processes in the complex verb agreement system languages, such as the Kiranti languages,[24] but only the beginning stages of it in Tangut. This is part of the reason why among the verb agreement systems that do exist in Tibeto-Burman languages, Tangut should be considered the most archaic and least grammaticalized. Arguing against this view, van Driem (1991: 531) states that 'Tangut looks prima facie just as much like a degenerated and simplified Kiranti [agreement] system as it does like a primitive and rudimentary Kiranti system', yet if the Tangut system had gone through thousands of years of degeneration and simplification, being subject to the kinds of grammatical processes outlined above, why are the affixes identical in phonological shape to the free pronouns, and why was the system still optional at the time the texts were written?

3.3 *Head-marking vs. dependent-marking.* Based on a careful survey of sixty languages, Nichols (1986) outlines the facts and implications of a typological distinction between languages where the morphological marking of grammatical relations, if there is any, appears on the head of a phrase or clause, such as in Hebrew and Hungarian, and those where it appears on the dependent of the head, as in English and Japanese. For example, in the Japanese sentence below (from Nichols, 1986: 61, cited from Kuno, 1973: 129), the dependents are all marked for case, while the head is unmarked (the markers are preceded by 'M', the head by 'H'):

(1)   *Boku* ^M*ga*   *tomodati* ^M*ni*   *hana*   ^M*o*   ^H*ageta.*
      1sg.   SUBJ friend   DAT flowers OBJ gave
      'I gave flowers to my friend.'

In the next example, from Tzutujil (Mayan, from Nichols, 1986: 61, cited from Dayley, 1981: 216), the nouns are unmarked, while the head has markers that indicate the person, number, and syntactic function (by the order of the markers) of the nouns:

(2)   x-^M0-^M*kee-*^H*tij*   *tzyaq   ch'ooyaa7.*
      ASP-3sg.-3pl.-ate clothes rats
      'Rats ate the clothes.'

The difference between head-marking and dependent-marking morphology provides a functional explanation for certain aspects of grammar and word order (see Nichols, 1986, forthcoming, for details; see also Van Valin, 1985, 1987 for the implications this distinction holds for grammatical theory).

  Nichols did not make reference to any languages in Tibeto-Burman, but all of the Tibeto-Burman languages that do not have verb agreement systems are solidly dependent-marking (i.e., they have marking on the nouns for case or pragmatic function); those languages with verb agreement systems, a type of

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[23] Cowgill (1963) also argues (based on Indo-European evidence) that there is a direct relationship between the morphological complexity of a set of affixes and its antiquity.
[24] Kiranti languages will often have as many as eight suffixal slots, as well as two or more prefixal slots, many portmanteau morphemes, tense or aspect distinctions, and complex morphophonemic rules (see Ebert, 1990, van Driem, 1990a).

head-marking, also have many dependent-marking features (of the same types as the non-pronominalized languages). The question, then, is which is older, the dependent-marking type or the head-marking (actually mixed) type? Based on a separate survey of 86 languages in fifteen families, Nichols found that morphological marking type is ' a conservative, stable feature in languages ' (p. 89), such that almost all of the changes she found in the groups she studied ' involved accommodation to areal patterns ' (p. 98). The most common change she found was the development of head-marking (as in the clisis of pronouns in Romance). Nichols found that in several respects ' head-marking patterns appear to be favored and universally preferred ' (p. 101). She suggests that based on her studies, ' ... in the event that we have two clearly related languages with clearly cognate morphology, one of them strongly head-marking and one strongly dependent-marking, we should reconstruct the dependent-marking type ' (p. 89). As this is the situation we have in Tibeto-Burman, we then have a typological argument for not reconstructing a verb agreement system for Proto-Tibeto-Burman. Two further arguments, also based on typological data, support this view.

There is a continuum across the pronominalized Tibeto-Burman languages in terms of the strength of head-marking. We can see for example the beginnings of head-marking in Angami Naga (Giridhar, 1980), where only kinship and body-part terms are head-marked for possession (and only certain stative verbs have person agreement), and its full development in Gyarong (Qu, 1984), where all nouns (and verbs) can be head-marked. This is in concord with Nichols's observation that the development of head-marking of nouns for possession will begin with cases of inalienable possession. We see the same process of dependent- to head- or double-marking (and not the opposite) through cliticization of pronouns occurring in other language families, such as the Oregon Penutian groups (Silverstein, 1979), and the Pama-Nyungan languages of Australia. In the latter, just as in Tibeto-Burman, there is ' cliticization of pronouns ... and expansion of the head-marked treatment of inalienable possession ' (Nichols, 1986: 99).[25]

There are many ways for head-marking patterns to develop: ' they may arise as isolating languages become agglutinating, and pronouns are cliticized to verbs ... or they may develop from dependent-marking languages, through migration and clisis ' (Nichols, 1986: 88). It is just such cliticization of pronouns to verbs that we see in the Tibeto-Burman languages that have verb agreement systems. We can see the development of very similar verb agreement systems in other parts of Asia (e.g. in Turkic and Mongolian languages—Comrie, 1980a, and in eastern Siberian languages—Comrie, 1980b), and in North America and Australia, as mentioned above. Dependent-marking, on the other hand, evolves only ' through extensive use of boundary shifting ... so that the adposition becomes an affix on its former dependent ', as occurred in the western languages

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[25] The similarities between the Australian and the Tibeto-Burman situation are striking; in the following discussion of Australian pronominalization, Dixon (1980: 363) could just as easily have been discussing the situation in Tibeto-Burman:

It is clear that the bound-form pronouns have developed from free forms ... relatively recently, and that this process of evolution must have taken place independently in several different regions. Having begun in some language within a certain area this development then diffused to neighboring tongues.

Just as in Tibeto-Burman, Australian languages have ' a propensity towards developing bound pronominal forms, but ... this is further advanced in some languages than others ' (ibid.). Cf. also Dixon's map of the spread of pronominalization in Australia (p. 364). The Australian facts are also clear evidence that van Driem is simply wrong in stating that this type of contact induced spread is ' unattested ' (1991: 532).

of the Uralic family (Nichols, 1986: 88). We see no evidence of this process in Tibeto-Burman morphology. The dependent-marking system, or at least a non-head-marking system, must then be the original pattern.

3.4. *The question of ergativity.* Every major work on ergativity (e.g. Silverstein, 1976; Comrie, 1978, 1981; Dixon, 1979; Kibrik, 1985) defines ergativity in terms of semantic roles (i.e. A, S, and P).[26] A generally accepted minimum definition of ergativity is a system in which the S and P arguments are consistently marked[27] one way while the A argument is marked differently. In a split-ergative system, this type of marking is restricted to a particular temporal or referential domain, but the marking of semantic role is consistent within the relevant domain. The definition of split ergativity given by DeLancey (e.g. 1989b: 317; see above, §0) as marking person regardless of semantic role or syntactic function does not seem to be in accord with the generally accepted view of ergativity defined in terms of semantic role.

DeLancey (1989b: 318) states that the Gyarong paradigm is a split-ergative system, 'in that agreement is sometimes with object, i.e. in an ergative pattern, and sometimes with subject, with the choice determined by the person of the two arguments'.[28] Yet this statement is deceptive, as agreement in Gyarong is with 1st person any time a 1st person is involved, regardless of its semantic of syntactic function.[29] It is not proper then to speak of, for example, the Gyarong or Tangut verb agreement systems as ergative or split-ergative systems, as they are clearly not marking semantic role or syntactic function, but simply discourse prominence.[30] DeLancey himself (1989a: 52), in speaking of the supposed Proto-Tibeto-Burman verb agreement system, says, 'Note that there is no evidence suggesting the original existence of case distinctions in the agreement suffixes, which index simply the presence of a 1st or 2nd person argument of the verb. While some case distinctions can be found in some of the modern East Himalayan languages, they are clearly secondary developments.' Kepping, who also supports the idea of Proto-Tibeto-Burman ergativity, says that 'verbal agreement too [as well as noun marking] gives us no grounds for assigning Tangut to either the nominative or the ergative type' (1979: 267). Kepping's (1979, 1989) solution to this is to call Tangut a 'mixed' ergative-accusative language. This is, I assume, due to a (mistaken) assumption that there can only be two types of language, ergative and accusative, and so if it is not clearly one or the other, it must be a mixture of these two types (see Klimov, 1986: 107 on the 'dubiousness of the notion of " mixed " type'). If we compare the Tangut verb agreement system with that of for example Dyirbal, an Australian

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[26] See also Dryer's statement (1986: 841) that 'The ergative/absolutive and Subject/Object distinctions differ in that the former is linked to semantic roles, the latter to discourse/pragmatic function'. See Givón (1980) and Klimov (1984) on seeing ergative morphology as being semantically based on the contrast of agent vs. non-agent.

[27] We are speaking here only of morphological ergativity; syntactic ergativity has no necessary correlation with morphological ergativity (Comrie, 1981: 65ff.). We are also not talking about the ergative nominal morphology ('case marking') found in many Tibeto-Burman languages, a type of dependent-marking; I am dealing here only with marking on the verb, a type of head-marking. The two are quite different. (See §3.3 above for definitions of marking types. See also LaPolla (1991) for discussion of nominal morphology in Tibeto-Burman.)

[28] Another problem with DeLancey's analysis is that while in some languages agreement may be regularly with the P (or other non-A) role NP when there are two SAPs in the clause, in some other languages, such as Qiang and Deng (Kaman), agreement in that situation is consistently with the A role NP (Sun, 1983b).

[29] This is generally true also for Nocte (Das Gupta, 1971—cited in DeLancey, 1981a), Muya (Huang, 1985) and Dulong (Sun, 1983b).

[30] Nagano (1984, 1987) discusses the possibility of seeing the Gyarong u- prefix as a type of ergative marker, as its distribution is the same as the nominal ergative Dyirbal marker, but he does not see the person markers as ergative marking.

language known for having an ergative system split according to person, it becomes very clear that the Tangut system is one based on person, not on semantic role, and is quite different from anything normally referred to as 'ergative'. In Dyirbal, 1st and 2nd person pronouns take nominative/accusative marking, while all other types of NP take ergative marking (from Dixon, 1979: 87):

A -θ	-ŋgu	-ŋgu	-ŋgu
S -θ	-θ	-θ	-θ
O -na	-θ	-θ	-θ
1st and 2nd person pronouns	3rd person pronouns	proper names	common nouns

Compare Tangut, where, when it is manifested, agreement is always with the SAP pronoun regardless of semantic role:

A -ŋa^2	-na^2	-θ
S -ŋa^2	-na^2	-θ
O -ŋa^2	-na^2	-θ
other -ŋa^2	-na^2	-θ
1st person pronouns	2nd person pronouns	3rd person nouns and pronouns

Van Driem (1990a: 40), in discussing the different Kiranti 1st person singular agreement suffixes, states that 'The only common semantic denominator between the first singular morphemes ... is first singular involvement.' Again, no evidence of ergativity. Boyd Michailovsky (1988: 111-13) explicitly demonstrates that the verb agreement system in Hayu is also clearly not ergative (though the language has ergative marking on the nouns), as agreement is with whichever argument is highest on the person hierarchy 1st person > 2nd person > 3rd person, *regardless of case role*.

In terms of methodology there is also the problem that in most of the papers which attempt to reconstruct a Proto-Tibeto-Burman verb agreement system, comparisons are done on highly simplified and selected parts of total agreement systems,[31] and little is said of how the affixes are really used.[32] For example,

[31] In doing cross-linguistic comparisons, DeLancey generally gives only the singular paradigms, but if we look at the complete paradigms we often see that the paradigm is very language specific in that it transparently reflects the independent pronouns. Compare for example the Gyarong independent pronouns and the intransitive verbal affixes (lCog-rtse dialect—Nagano, 1983: 106):

person	affix	pronoun		person	affix	pronoun
1sg.	-ng	nga		2sg.	-n	no
1dual	-ch	chi-gyo		2dual	-Nch	ji-gyo
1pl.	-y	yo		2pl.	-ny	nyo

The affixes we find in the verbal person-marking systems are in most cases also clearly related to the nominal possessive affixes. Compare the nominal and verbal affixes from the Suomo dialect of Gyarong (Jin *et al.* 1958):

person	noun affix	verb affix		person	noun affix	verb affix
1	ŋə/ŋa	ŋ		1pl.	ji/ja	i
2	nə/na	n		2pl.	ɳi/ɳa	ɳ
3	wə/wa	u		3pl.	ndʒ/ndʒa	wu/u

We then have three possibilities: (*a*) the entire verbal paradigm, plus the nominal paradigm, of each language is descended from Proto-Tibeto-Burman; (*b*) both paradigms reflect the same innovation of pronominalization within each language or language group; (*c*) each language just inherited the first and second singular forms of the verbal paradigm, then fleshed out the rest of the forms (possibly one hundred forms, see Ebert, 1990 for the Chamling paradigm) based on its own free pronouns. Only comparative research on full paradigms will allow us to decide which of these possibilities is the most likely one.

[32] Van Driem (1991: 531) claims that in my earlier paper (LaPolla, 1989) I provided only a

Bauman (1979: 423) gives the paradigms in table 2, below, for Vayu (Hayu) and Chepang, to show the 'ergative patterns of intransitive-transitive alignments'. Bauman (ibid.) states that ' Ergative patterns of agreement ... are most clearly seen in languages like Vayu and Chepang, where the set of affixes which marks the person of intransitive subjects is identical or nearly so to the set which marks transitive objects in corresponding persons (provided the subject is 3rd person) '.

Table 2: *The Vayu and Chepang agreement forms for intransitive verbs and transitive verbs with 3rd person subjects* (from Bauman, 1979: 423)

| | Vayu | | Chepang | |
	Intr. Subj.	*Trans. Obj.*	*Intr. Subj.*	*Trans. Obj.*
1sg.	-ŋo	-ŋo	-ŋ	-taːŋ
dl. incl.	-chik	-chik	-tayhca	-tayhca
dl. excl.	-chok	-chok	-ŋca	-taːŋca
pl. incl.	-ke	-ke	-tayhi	-tayhi
pl. excl.	-kok	-kok	-ŋi	-taːŋi
2sg.	-θ	-θ	-te	-te
dl.	-chik	-chik	-te- -ja	-te- -ja
pl.	-ne	-ne	-te- -y	-te- -y

It is this parenthetical aside at the end of Bauman's statement that is the key to the logical error in Bauman's argument. Just as we have seen in Tangut, in Vayu and Chepang the basic pattern of agreement is with any SAP in the sentence, regardless of role, if the other participants in the clause are non-SAPs, so of course his 'ergative' pattern will only work when the subject is a non-SAP, and the single SAP in the clause is the object. I could use the same type of chart, but based on the SAP as subject instead of object, as evidence that these languages are of the nominative type, as the marking then would be the same for the intransitive and transitive subjects. This type of paradigm comparison then is of no use in trying to prove ergativity.

The type of agreement system we are talking about here is very clearly one based on person rather than syntactic function or semantic role.[33] If we accept Du Bois's (1985, 1987) association of absolutive marking with the information status 'new' and nominative marking with discourse pressures to mark the topic, then this should be seen as closer to a nominative system rather than an ergative one, since the clitic pronouns of the verb agreement systems are typical of the most unmarked topics (Lambrecht, 1986). Dixon (1979: 92) points out that as cross-referencing systems are basically pronominal, ' We expect them to be on a nominative/accusative pattern, since this characterizes pronouns, at the extreme left of [Silverstein's (1976) person] hierarchy.' Nichols (1986: 114) has suggested that

> Head-marked patterns contribute to a flat syntax which minimizes intra-clause and inter-clause structure, freeing a language to concentrate on the

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portion of the Tangut agreement system, while in fact my explication of the system is more complete than his, as he leaves out the crucial fact that the system is not only not obligatory, but is in fact rare in the Tangut texts (see n. 18 above).

[33] See Hale and Watters (1973: 209-17) for a discussion of person markers on the verb as ' focus ' (topic) markers. The type of topicality we are talking about here is not a simple one, as it is an intersection of discourse or sentence topic with the inherent topicality/saliency of SAPs. That is, the marking of discourse topic is constrained by the person of the arguments involved.

grammaticalization of discourse prominence and cohesion. In fact it turns out that it is precisely for head-marking languages that a number of traditional grammatical questions prove to be somewhat moot, because pragmatic and discourse relations (rather than strictly syntactic relations) are being grammaticalized.

In fact, Tibeto-Burman verb agreement systems represent a coherent and stable kind of system, one where agreement is based on person rather than clause syntax or semantics, and there is no need to explain them as degenerate ergative systems (see §4, below).

This type of marking based on person-number-animacy categories rather than grammatical or semantic relations, is what Nichols (forthcoming) refers to as ' hierarchical '. We find the same type of system in some North American Indian languages (e.g. Algonquian—Bloomfield, 1946; Nootkan—Whistler, 1985). Whistler (1985: 244) points out that this type of marking ' makes sense if one considers that it constitutes giving the natural " thematicity " of a SAP formal priority over its semantic role in explicit coding on the predicate.' DeLancey himself, in his earlier work (1980a, 1980b, 1981a, 1981b), developed a concept of ' viewpoint ' based on the inherent saliency of the SAPs (i.e., that the ' most natural viewpoint for the sentence is with the SAP ' (1981a: 638)),[34] yet still insists that the Tibeto-Burman verb agreement systems are split-ergative systems. As the older agreement systems are clearly this type of pragmatically-based grammaticalization of the discourse prominence of SAPs, they are no justification for reconstructing an ergative morphological system for Proto-Tibeto-Burman.[35]

4. *Conclusions*

Bauman (1979: 430) suggests that there is a drift away from what he has defined as ergativity, but not towards accusativity, rather towards ' non-ergativity ', as there are no unequivocally accusative Tibeto-Burman languages. He sees this ' non-ergativity ' as the endpoint of historical change in Tibeto-Burman. I propose the opposite: that Tibeto-Burman *began* as a morphologi-cally simple ' role-dominated ' (Foley and Van Valin, 1977) language, similar to Chinese (see LaPolla, 1988a, 1988b, 1990), with which we must eventually link it. The various daughter languages later developed various means of coding either pragmatics (Tangut), syntactic function (Kham, Kuki-Chin), or semantic role (Tibetan), or some combination of these three. On this view, the typical Lolo-Burmese role-dominated system (epitomized by Lahu—see Matisoff, 1973) is closest to the original Proto-Tibeto-Burman system of grammatical relations, rather than being the most degenerate, as assumed by those proposing a Proto-Tibeto-Burman verb agreement system.[36]

I would like to emphasize that I am not attempting to discredit any of the work DeLancey, van Driem, and others have done in reconstructing proto-agreement systems for those language groups that have clearly cognate systems. My contentions are only (*a*) that we do not have sufficient evidence to allow us

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[34] See also the quote from Silverstein in n. 19 above. Delancey's ' viewpoint ' is similar to Kuno's (1976, 1987) ' empathy ' hierarchies, which Van Valin (1990) reduces to a single principle ' E(more topical NP) > E(less topical NP) ', i.e., empathy is with the more topical NP.

[35] In some languages in the Tibeto-Burman area and in North America there is a secondary marking of the direction of the transitive action, but this is almost always etymologically separate from the person marking, and in some cases even this direction marking is sensitive to discourse thematic factors rather than purely reflecting semantic role (Whistler, 1985: 245).

[36] There are a number of other facts about the Tibeto-Burman languages that also lead to this conclusion, including commonalities with Old Chinese, but they are outside the scope of the present paper. (See LaPolla, 1990, ch. v, for a brief discussion of some of them.)

confidently to assert that the suffixal pattern is a case of shared retention in those languages that exhibit it, and that it was lost in those languages that do not exhibit it, so the dating of those systems that can be reconstructed for certain subgroups must be later than the Proto-Tibeto-Burman stage, and (b) that most of the systems we find are not of an ergative nature, and do not reflect semantic or syntactic relations, but all seem to have grown out of pragmatic pressures to mark the salient participants involved in the speech act. I have also here argued, using the question of a Proto-Tibeto-Burman agreement system as an example, that in doing morphological reconstruction, we should not build up morphological systems, and often end up engaging in 'paradigm stuffing', but should strip back the layers of transparent grammaticalization to arrive at an opaque core. Typologically and functionally based theories which point out the direction of grammaticalization allow us to do exactly that.

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